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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,668	10/20/2000	Takao Mukai	36856.366	7526

7590 11/30/2001

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EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 11/30/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/692,668

Examiner

Julio C. Gonzalez

Applicant(s)

MUKAI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/20/00 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ladder type filter, resonator filter and transversely resonator filter disclosed in claim 3 must be shown or the feature(s) canceled from the claim(s). Using different filters would affect the disclosed invention and most likely in different ways, therefore making an incomplete illustration of the invention. See MPEP 608.02 (d) and 608.02(e). No new matter should be entered.

2. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Correction is required.

3. In order to avoid abandonment, the drawing informalities noted in Paper No. First Office Action, mailed on 6/18/01, must now be corrected. Correction can only be effected in the manner set forth in the above noted paper.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4-7, 10, 11 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ago et al.

Ago et al discloses a surface acoustic wave device comprising a piezoelectric substrate 5 having a pair of edges, an interdigital transducer 4 provided on main region wherein a distance L is between at least one inner edge and corresponding one of the substrate edges is equal to about 8λ or less (see figures 2, 4, 5). Also, the inner edge has a height H in the range of about 2λ to about 6λ (column 5, lines 47-49). Moreover the IDT has a plurality of electrode fingers (see figure 2 and column 2, lines 7-11).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 8, 9, 12, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ago et al in view of Kadota et al (Patent # 6,163,099).

Ago et al discloses a surface acoustic wave device comprising a piezoelectric substrate 5 having a pair of edges, an interdigital transducer 4 provided on main region wherein a distance L is between at least one inner edge and corresponding one of the substrate edges is equal to about 8λ or less (see figures 2, 4, 5).

Also, the inner edge has a height H in the range of about 2λ to about 6λ (column 5, lines 47-49). Moreover the IDT has a plurality of electrode fingers (see figure 2 and column 2, lines 7-11).

However, Ago et al does not disclose the use of two electrodes or filters.

On the other hand, Kadota et al discloses for the purpose of improving insertion loss and reducing resonance resistant that the surface acoustic wave device has two electrodes (see figure 2) and it has resonance filters (column 8, lines 29-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a surface acoustic device comprising an IDT, a plurality of electrodes and the piezoelectric substrate having grooves as disclosed by Ago et al and to modify the invention by having filters and two IDT's for the purpose of improving insertion loss and reducing resonance resistant as disclosed by Kadota et al.

Response to Arguments

8. Applicant's arguments filed 10/20/00 have been fully considered but they are not persuasive.

Anyone with common skill in the art would notice and read in the cited Patent # 5,684,437 that the width of the electrode finger 24a is $\lambda/4$ (column 5, line 12). If someone were to measure the distance, as disclosed by applicant's claim 1, from "one inner edge and the corresponding one of the substrate edges", would see that the range is between $\lambda/10$ and 8λ (see figure 4). Moreover, the office action was made clearer for better understanding.

In regards to the height of the edges, Ago et al teaches that the height is in the range of 1λ to 7λ , which "about" close to the applicants' range, which the term "about" is merely an indication that exactitude is not being claimed, but rather a contemplated slight variation from the recited range. Also, according to claim 1, the distance L can be interpreted in different ways since an "inner edge" could apply to either side edge of the groove 23 (see applicant's figure 2).

9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., necessity or desirability, **in the claims**, of any specific relationship between or range of values for a distance between an inner edge or a piezoelectric substrate and a corresponding substrate edge) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

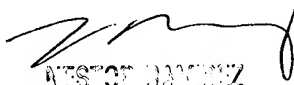
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

November 7, 2001


NESTOR RAMIREZ
SUPERVISOR, EXAMINER
TECHNICAL CENTER